

Auto Refinishing

Notes: On September 11, 1998, the United States Environmental Protection Agency published in the Federal Register the National Volatile Organic Compound (VOC) Emission Standards for Automobile Refinish Coatings (national rule). The national rule applies to manufacturers and importers of automobile refinish coatings or coating components formulated for sale or distribution in the United States. The VOC limits in the national rule can be met easily by automotive refinish coating manufacturers. There are already coatings available in California which have been successfully used by body shops for several years that meet these limits. The national rule should not have any impact on the ability of body shops in California to apply acceptable paint jobs. The national rule has not been included in this document.

In contrast to the national rule, California district rules make the coating user responsible for using coatings which meet the VOC content limits in a rule, and impose recordkeeping requirements to track the type and amount of coatings used.

Table I
Identification of Performance Standards
Source Category: Auto Refinishing

Regulated Component	Pollutant	Rule/Measure/Date									
		BAAQMD 8-45 (11/6/96)		SCAQMD 1151 (6/13/97)		RACT (5/95)		BARCT (5/95)		San Luis Obispo 423 9/25/96	
		Performance Standard									
Pretreatment Wash Primer	VOCs										
Automobiles, trucks,vans			780 g/l		780 g/l		780 g/l		780 g/l		780 g/l
Mobile equipment, buses			780 g/l		780 g/l		780 g/l		780 g/l	X	780 g/l (cannot use pretreatment wash primer in excess of 10% by volume of the amount of primer used)
Precoat	VOCs										
Automobiles, trucks,vans			600 g/l				780 g/l		600 g/l		precoat not allowed for auto, trucks, vans
Mobile equipment, buses			600 g/l				780 g/l		600 g/l		600 g/l
			(facilities cannot use precoat in excess of 25% of the amount of waterborne primer surfacer used)	X	precoat not allowed for any categories		(facilities cannot use precoat in excess of 25% of the amount of waterborne primer surfacer used)		(facilities cannot use precoat in excess of 25% of the amount of waterborne primer surfacer used)		(facilities cannot use precoat in excess of 25% of the amount of primer used)

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		Performance Standard									
Extreme Performance						x	750 g/l				
Mobile equipment, buses							750 g/l				
Primer Sealer	VOCs										
Automobiles, trucks,vans			420 g/l		340 g/l		420 g/l		420 g/l		600 g/l
Mobile equipment, buses			340 g/l	X	250 g/l		340 g/l		340 g/l		340 g/l
Primer Surfacer	VOCs										
Automobiles, trucks,vans			250 g/l		250 g/l		340 g/l		250 g/l		600 g/l
Mobile equipment, buses		X	250 g/l	X	250 g/l		340 g/l	X	250 g/l		340 g/l

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		Performance Standard									
Solid Color Topcoat	VOCs										
Automobiles, trucks,vans		X	420 g/l	X	420 g/l		600 g/l	X	420 g/l	X	420 g/l
Mobile equipment, buses			-		-		420 g/l		420 g/l		-
Metallic/Iridescent Topcoat	VOCs										
Automobiles, trucks,vans			520 g/l	X	420 g/l		600 g/l		520 g/l		540 g/l
Mobile equipment, buses			420 g/l		340 g/l		420 g/l		420 g/l		420 g/l
Multicolored	VOCs										
Automobiles, trucks,vans			-	X	685 g/l		-		-		-
Mobile equipment, buses					685 g/l						

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		Performance Standard									
Multicolored Multistage Automobiles, trucks,vans Mobile equipment, buses	VOCs		-				-		-		-
				X	420 g/l						
					-						
Multi-Stage Topcoat Automobiles, trucks,vans Mobile equipment, buses	VOCs		540 g/l		420 g/l		600 g/l		540 g/l		540 g/l
			-		340 g/l		420 g/l		420 g/l		-
General Topcoat Automobiles, trucks,vans Mobile equipment, buses	VOCs		-		420 g/l		-		-		-
			420 g/l		X		340 g/l		-		420 g/l

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		Performance Standard									
Camouflage Automobiles, trucks,vans Mobile equipment, buses	VOCs	x	- 420 g/l			x	- 420	x	- 420	x	420 g/l
Speciality Coatings	VOCs	X	840 g/l (use of speciality coatings, except anti- glare and safety coatings, shall not exceed 5% of all coatings applied on a monthly basis.)		840 g/l	X	840 g/l (use of speciality coatings, except anti- glare and safety coatings, shall not exceed 5% of all coatings applied on a monthly basis.)	X	840 g/l (use of speciality coatings, except anti- glare and safety coatings, shall not exceed 5% of all coatings applied on a monthly basis.)	X	840 g/l (use of speciality coatings, except anti- glare and safety coatings, shall not exceed 5% of all coatings applied on a monthly basis.)
Temporary Protective Coating	VOCs	X	60 g/l	X	60 g/l	X	60 g/l	X	60 g/l	X	60 g/l
Surface Preparation Solvent	VOCs		72 g/l	X	70 g/l		72 g/l		72 g/l		200 g/l
Surface Prep Solvent for Plastic Parts	VOCs	X	780 g/l			X	780 g/l	X	780 g/l	X	780 g/l

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		Performance Standard								
Spray Booth	particulate		Facilities may not apply topcoats outside spray booths		-		-		-	X All coatings must be applied in a spray booth. The booth must have a 95% control efficiency.
Transfer Efficiency	VOCs	X	must use HVLP or electrostatic application methods, or a method that has equivalent transfer efficiency of HVLP.	X	must use HVLP or electrostatic application methods, or a method that has equivalent transfer efficiency of HVLP.	X	Must use HVLP, electrostatic application methods, or an application method with 65% transfer efficiency	X	Must use HVLP, electrostatic application methods, or an application method with 65% transfer efficiency	X Must use HVLP, electrostatic application methods, or an application method with 65% transfer efficiency
Clean-up of Equipment	VOCs	X	facilities must use equipment that collects spent solvents, and minimizes their evaporation	X	facilities must use wipe cleaning, spray bottles, enclosed cleaning device, or approved clean-up equipment	X	must use enclosed cleaning equipment	X	must use enclosed cleaning equipment	X must use an enclosed cleaning system, or approved alternative may be used if used w/ solvents with a composite vapor pressure less than 45 mm Hg at 20° C.

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		Performance Standard									
Prohibition of Specification	VOCs	X	no person shall specify the use of a coating within the district if application of the coating results in a violation of the rule.	X	no person shall specify the use of a coating within the district if application of the coating results in a violation of the rule.	X	no person shall specify the use of a coating within the district if application of the coating results in a violation of the rule.	X	no person shall specify the use of a coating within the district if application of the coating results in a violation of the rule.	X	no person shall specify the use of a coating within the district if application of the coating results in a violation of the rule.
Prohibition of Sale	VOCs	X	no person shall sell within the district any coating if such a product is prohibited by rule.	X	no person shall sell within the district any coating if such a product is prohibited by rule.		no person shall sell within the district any coating if such a product is prohibited by rule. (Optional)		no person shall sell within the district any coating if such a product is prohibited by rule. (Optional)	X	no person shall sell within the district any coating if such a product is prohibited by rule.
Solvent Loss Minimization	VOCs	X	use closed containers for storage and disposal of cleaning rags and close solvent-containing containers when not in use	X	use closed containers for storage and disposal of cleaning rags and close solvent-containing containers when not in use	X	use closed containers for storage and disposal of cleaning rags and close solvent-containing containers when not in use	X	use closed containers for storage and disposal of cleaning rags and close solvent-containing containers when not in use	X	use closed containers for storage and disposal of cleaning rags and close solvent-containing containers when not in use
Coating Components	cadmium, hexavalent chromium		-	x	cannot add hexavalent chromium or cadmium to coatings		-		-		-

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		Performance Standard									
Control Equipment	VOCs	X	may use control equipment with 85% control efficiency instead of required low-VOC coatings	X	if a facility uses control equipment instead of required low-VOC coatings, emissions must be controlled to a level equivalent to use of low-VOC coatings	X	may use control equipment with 85% control efficiency instead of required low-VOC coatings. The overall emissions reductions must be equivalent to emissions reductions achieved by use of low-VOC coatings.	X	may use control equipment with 85% control efficiency instead of required low-VOC coatings. The overall emissions reductions must be equivalent to emissions reductions achieved by use of low-VOC coatings	X	if control equipment is used instead of low-voc coatings, the equipment must capture at least 90% of organic emissions, and have a destruction efficiency of at least 95%.
Compliance Statement		n q	Manufacturer shall provide on container of all coatings and solvents or accompanying MSDS, the VOC content and mixing instructions for the coating or solvent.							n q	Manufacturer shall provide on container of all coatings and solvents or accompanying MSDS, the VOC content and mixing instructions for the coating or solvent.

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		Performance Standard											
HVLP Marking		n	A person shall not sell HVLP equipment without markings denoting the maximum inlet air pressure at which gun will operate according to the provisions of the rule.	q		n	A person shall not sell HVLP equipment without markings denoting the maximum inlet air pressure at which gun will operate according to the provisions of the rule.	q	A person shall not sell HVLP equipment without markings denoting the maximum inlet air pressure at which gun will operate according to the provisions of the rule.	n	A person shall not sell HVLP equipment without markings denoting the maximum inlet air pressure at which gun will operate according to the provisions of the rule.	q	A person shall not sell HVLP equipment without markings denoting the maximum inlet air pressure at which gun will operate according to the provisions of the rule.

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		Performance Standard									
Recordkeeping	VOCs	n q	- all coatings and components used; - mix ratio - VOC content of coatings used - on a weekly basis, record: coating and mix ratio; quantity of coatings used; - on a daily basis, record: quantity and mix ratio of speciality coating used - record on a monthly basis cleanup and surface prep solvent	n q	- amount of coatings, coating components, solvents, and adhesives used -VOC content of coatings, coating components, solvents, and adhesives used - vapor pressure of solvents	n q	- type of coating used and the type of vehicle or equipment to which coating was applied - coating, catalyst, additives, and reducer used - mix ration VOC content of coatings as applied - monthly records showing the type and amount of solvent used for cleanup and preparation	n q	- type of coating used and the type of vehicle or equipment to which coating was applied - coating, catalyst, additives, and reducer used - mix ratio VOC content of coatings as applied - monthly records showing the type and amount of solvent used for cleanup and preparation	n q	- coating manufacturer - coating, catalyst, and reducer used - mix ratio - VOC content -coating category - purchase records - summary of the monthly VOC emissions categorized by type, and indicating whether hex chrome is present - number of utility bodies coated

Table II
Identification of Performance Standards
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Rule/Measure	Rule/Measure				
	BAAQMD 8-45	SCAQMD 1151	RACT	BARCT	San Luis Obispo 423
Exemptions	<p>- transfer efficiency provisions shall not apply to application of high viscosity or thixotropic coatings with application equipment that is supplied with and is an integral part of the coating container or to the application of corrosion protective coatings to enclosed interior spaces.</p>	<p>- VOC limits shall not apply to coatings applied for educational purposes at coating training centers, provided that VOC emissions from noncompliant coatings at the training center does not exceed 12 lbs/day.</p>	<p>- Original Equipment Manufacturers</p>	<p>- Original Equipment Manufacturers</p>	<p>- transfer efficiency, spray booth, and recordkeeping provisions shall not apply to painting done at a one or two family dwellings if the person apply the coating owns the vehicle</p> <p>- spray booth requirement shall not apply to touch-up or spot-primering operations that do not exceed nine sq. Ft per vehicle</p> <p>- operations that cannot be placed in a spray booth may be exempted on a case-by-case basis</p> <p>- transfer efficiency requirements do not apply to the application of chip resistant or underbody coatings</p>

Table II
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Rule/Measure	Rule/Measure				
	BAAQMD 8-45	SCAQMD 1151	RACT	BARCT	San Luis Obispo 423
Applicability	Facilities that finish or refinish motor vehicles, mobile equipment and their parts and components	The rule applies to all commercial and non-commercial coating applications to Group I and Group II Vehicles and Equipment and their parts and components at facilities involved in the non-assembly line production, modification, or refinishing of motor vehicles and mobile equipment. Commercial and non-commercial facilities with coating operations considered within the scope of this rule include, but are not limited to: autobody repair/paint shops, production autobody shops, new car dealer repair/paint shops, fleet operator repair/paint shops, custom-made car fabrication facilities, truck body builders, and residences.	The provisions of this rule shall apply to all automobile refinishing operations that include the finishing or refinishing of motor vehicles, mobile equipment and their parts and components.	The provisions of this rule shall apply to all automobile refinishing operations that include the finishing or refinishing of motor vehicles, mobile equipment and their parts and components.	The provisions of this Rule apply to any person who supplies, sells, offers for sale, applies, or specifies the use of coatings for motor vehicles, mobile equipment, and their parts or components.
Comments					